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## Claims

1. A grid having the form of a web of vertically disposed plates said web of plates comprising (a) a network of strands of plate segments connected by junctions, the said strands terminating only at the periphery of the grid, and (b) one or more internal plate branches, each plate segment being joined at one end to a junction with at least two other plate segments and at the other end either being joined to a junction with at least two other plate segments or terminating at or near the periphery of the grid, said internal branch comprising a plate having a free end within the grid and being joined at one end thereof to a segment or to another branch, characterised in that in horizontal cross-section through the grid each segment has at least two angular and/or curved portions which alternate in direction.
2. A grid according to claim 1 wherein the alternation in direction of the angular and/or curved portions may be of equal magnitude or of differing magnitude.
3. A grid having the form of a web of vertically disposed interconnected plates or strips, said web having in horizontal cross-section a repeating pattern, said pattern comprising one or more series of unit cells, each cell having substantially polygonal shape wherein each polygon contains at least 8 sides, at least two internal angles above  $180^\circ$  and at least four internal angles below  $180^\circ$ .
4. A grid according to claim 3 wherein one or more linear or branched internal projections can be provided on one or more sides of a polygon and/or at the junction of two sides of a polygon, wherein the said projections do not bridge any polygon.

5        A grid according to anyone of the preceding claims wherein the grid is formed from vertical plates wherein each vertical plate has a high resistance to deformation in a direction parallel to its vertical plane and is relatively easily deformed in the horizontal plane.

5        6.        A grid according to anyone of claims 3-5 wherein the ratio of the height of the web to the average thickness of the vertical plates forming the web lies in the range 100:1 to 2:1.

7.        A grid according to anyone of claims 3-6 wherein the defined geometry of the unit cell dictates that the polygon has at least 8 sides, at least two internal angles above  
10        180° and at least four internal angles below 180°.

8.        A grid according to claim 8 wherein the geometric shape of the polygon can be superimposed on itself when rotated in the horizontal plane through 90°, or through 180° or through 120°.

9.        A grid according to anyone of the preceding claims wherein the grid is free from  
15        a solid boundary perimeter plate.

10.       A grid according to anyone of the preceding claims wherein the grid is formed from a metal.

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